



Product Information Sheet

Human Resistin ELISA Kit

Catalog No. EK0581

Size 96T

Range 78pg/ml-5,000pg/ml

Sensitivity < 3 pg/ml

Specificity

No detectable cross-reactivity with any other cytokine.

Storage

Store at 4°C for frequent use, at -20°C for infrequent use.

Avoid multiple freeze-thaw cycles (Shipped with wet ice.)

Expiration

Four months at 4°C and eight months at -20°C.

Application

For quantitative detection of human Resistin in sera, plasma, body fluids, tissue lysates or cell culture supernates.

Principle

Human Resistin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. Human Resistin specific polyclonal antibodies were precoated onto 96-well plates. The human specific detection polyclonal antibodies were biotinylated. The test samples and biotinylated detection antibodies were added to the wells subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human Resistin amount of sample captured in plate.

Kit Components

1. Lyophilized recombinant human Resistin standard: 5ng/tubex2.
2. One 96-well plate precoated with anti- human Resistin antibody.
3. Sample diluent buffer: 30 ml
4. Biotinylated anti- human Resistin antibody: 130µl, dilution 1:100.
5. Antibody diluent buffer: 12ml.
6. Avidin-Biotin-Peroxidase Complex (ABC) : 130µl, dilution 1:100.
7. ABC diluent buffer: 12ml.
8. TMB color developing agent: 10ml.
9. TMB stop solution: 10ml.

Material Required But Not Provided

1. Microplate reader in standard size.
2. Automated plate washer.
3. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection.
4. Clean tubes and Eppendorf tubes.
5. Washing buffer (neutral PBS or TBS).

Preparation of 0.01M **TBS**: Add 1.2g Tris, 8.5g NaCl; 450µl of purified acetic acid or 700µl of concentrated hydrochloric acid to 1000ml H₂O and adjust pH to 7.2-7.6. Finally, adjust the total volume to 1L.

Preparation of 0.01 M **PBS**: Add 8.5g sodium chloride, 1.4g Na₂HPO₄ and 0.2g NaH₂PO₄ to 1000ml distilled water and adjust pH to 7.2-7.6.

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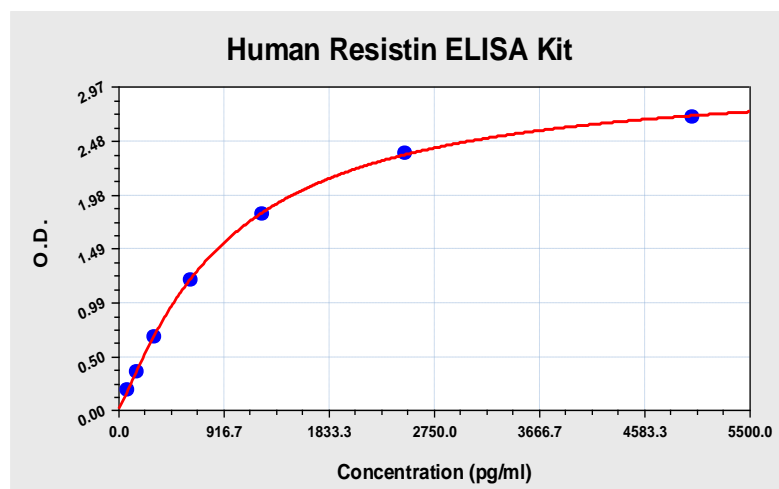
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Finally, adjust the total volume
to 1L.

Notice for Application of Kit

1. Before using Kit, spin tubes and bring down all components to bottom of tube.
2. Duplicate well assay was recommended for both standard and sample testing.
3. Don't let 96-well plate dry, dry plate will inactivate active components on plate.
4. In order to avoid marginal effect of plate incubation due to temperature difference (reaction may be stronger in the marginal wells), it is suggested that the diluted ABC and TMB solution will be pre-warmed in 37°C for 30 min before using.

Human Resistin ELISA Kit-1X96 Well Plate Image



Background

Resistin is an adipose-derived hormone postulated to link adiposity to insulin resistance.¹ Type 2 diabetes, characterized by target-tissue resistance to insulin, is epidemic in industrialized societies and is strongly associated with obesity. Adipocytes secrete a unique signalling molecule, which called resistin (for resistance to insulin), that may be the hormone potentially links obesity to diabetes.² Resistin is overexpressed in human adipose tissue of obese individuals and is likely to modulate insulin sensitivity. Resistin is, therefore, a candidate gene for insulin resistance.³ The standard product used in this kit is human Resistin with the molecular mass of 51-53KDa. The detected Resistin includes zymogen and active enzyme.

Reference

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2. Steppan, C. M.; Bailey, S. T.; Bhat, S.; Brown, E. J.; Banerjee, R. R.; Wright, C. M.; Patel, H. R.; Ahima, R. S.; Lazar, M. A. The hormone resistin links obesity to diabetes. *Nature* 409: 307-312, 2001.
3. Pizzuti, A.; Argiolas, A.; Di Paola, R.; Baratta, R.; Rauseo, A.; Bozzali, M.; Vigneri, R.; Dallapiccola, B.; Trischitta, V.; Frittitta, L. An ATG repeat in the 3-prime-untranslated region of the human resistin gene is associated with a decreased risk of insulin resistance. *J. Clin. Endocr. Metab.* 87: 4403-4406, 2002.

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